

The Art
OF
PRESERVING TEETH.

By NATHANIEL PEABODY,
FELLOW OF THE MASSACHUSETTS MEDICAL SOCIETY.

Father of Mr. Nathaniel Hawthorne.

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DISTRICT OF MASSACHUSETTS, TO WIT :

District Clerk's Office.

BE IT REMEMBERED, That on the twenty-ninth day of May, A. D. 1824, and in the 48th year of the Independence of the United States of America, Nathaniel Peabody, of the said district, hath deposited in this office the title of a book, the right whereof he claims as proprietor, in the words following, to wit :

"The Art of Preserving Teeth. By Nathaniel Peabody, Fellow of the Massachusetts Medical Society."

In conformity to the act of the Congress of the United States, entitled "An Act for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies, during the times therein mentioned;" and also to an act, entitled, "An Act, supplementary to an act, entitled, An Act for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies during the times therein mentioned, and extending the benefits thereof to the arts of designing, engraving and etching historical and other prints."

JOHN W. DAVIS,

Clerk of the District of Massachusetts.

IN the following pages the object has been to avoid all theoretical remarks on the subject, and merely describe the diseases common or incident to the teeth, so that any person, who reads them, may be able to ascertain for himself, *what* he can do, and *when* it is necessary to ask for assistance. The Author has stated nothing, but what is grounded upon the result of a number of years' experience and critical observation, and has been careful not to raise expectations, which cannot be satisfied. To those, who have been educated to pay particular attention to the cleanliness of their teeth, some parts may appear minute and tedious. As an apology for this, he begs leave to state, that, as minute as they may seem, they are nothing more than answers to queries, which have been constantly made to him in the course of his practice.

Nothing will be expected here to assist the professional Dentist. He must look for his direction in treatises which would be useless to those for whom this is designed.

There is another class of people which the following work is not expected to benefit. I mean those, who are either so ignorant, or so skeptical, that they cannot or will not be informed, or who think, that every one, who pretends to benefit teeth, by operating upon them, does it, as a mere trade

to get money by, without any principle of honesty, and as a juggler or mountebank. That many have good reason to be cautious is not to be wondered at, when it is known, that some, from a fondness of new things, which can be obtained *cheap*, have submitted to operations which have not only proved useless and dear in the end, but oftentimes injurious.

Finally, this work is offered to those, who are desirous by fair means to make the best of one of the handsomest features of the face, and who wish to remove the cause of unpleasant breath, which is an annoyance to their intimate friends, and which, with very few exceptions, arises from *carious, foul, and neglected teeth*.

To such people, and to all those, who have favoured the Author with their confidence and patronage, these lines are respectfully inscribed.

ART OF PRESERVING TEETH.

ON BRUSHING TEETH.

THE necessary articles for keeping the Teeth clean are a *stiff open brush*, a *close soft dentifrice brush*, a *box of dentifrice*, and a *tumbler of water*.

The proper times for brushing the teeth are in the morning, after each meal,—and especially just before going to bed.*

First, rinse your mouth with water.

Second, wet your stiff brush in water, and brush your teeth outside and in, at the same time keeping your mouth as full of water as convenient. It is well to draw your brush over a ball of fine soap after wetting it, which will facilitate the cleaning, and leave the teeth more smooth and agreeable.

* The reason for brushing the teeth just before going to bed is obvious, for the collection upon the teeth by eating during the day, will be removed in a degree by the ordinary motions of the mouth and tongue; whereas, in the night the mouth and tongue are at rest, and there is no opportunity for it. Further, the collection accumulated upon the teeth during the day, if suffered to remain through the night, becomes condensed, is more difficult to remove, and serves as a bed for the tartar.—Another advantage is gained by brushing the teeth at night, viz. the mouth will be much more comfortable in the morning. Bad breath always arises from foul teeth.

After brushing with the stiff brush, take your dentifrice brush, dip it in water, touch it to a little fine soap as recommended for the stiff brush, apply it to the surface of your dentifrice, and enough will adhere for one application. Now apply the brush with a brisk motion over your teeth as you did your stiff brush. After you have applied the dentifrice sufficiently, rinse your teeth, and they are clean.* If your gums are tender and spungy,

* Brushing with the stiff brush is all most teeth need. Indeed, we find some people's teeth are clean and in very good order, without any brushing at all. This is owing to the constitution and natural polish of the teeth. So it is with the health and constitution of body. Some people can suffer all kinds of neglect as to their health, and require no medical attention and no application of medicine; while others are under the necessity of using the greatest caution in their habits, of requiring frequent medical advice, and of having recourse to the constant application of medicine. It is not to be inferred from hence, that people of the best health, have always the best teeth. It is often the reverse. For people of the best constitutions frequently have very poor teeth, while many people of sickly constitutions and poor health have very good teeth. But, as a general rule, a good constitution of body and good health are favourable to, and accompanied with sound teeth; for people of good health save the use of medicine, many kinds of which are destructive to teeth, partly from the nature of the medicine, and partly from the careless use of it, together with inattention to teeth during sickness.

On the whole, where the constitution and health are unfavourable to the support of good teeth, observation and experience prove, that *care* and *attention* will do much, and in many cases supply the defect.

The rule for determining when powder is necessary for the teeth, is, when the proper use of the stiff brush does not keep the teeth free from tarnish or discolouration. And it is recommended, that dentifrice be used no oftener, than necessary to remedy this evil.—This will be from one to three or four times a week.

It may be observed, that there is little danger of using the

apply to them tincture of myrrh; which may be done by taking a little into your mouth and moving it about upon your gums as long as it has any

stiff brush and water too much, but dentifrice *may be* applied more than necessary or beneficial. Dentifrice is not to be used as a *preventative* but as a *remedy*. To use it as a *preventative* is just as absurd as to extract a sound tooth, because it *may* at some future time decay and become painful. Finally, what rule does a lady observe in keeping bright her teaspoons?—Why, she washes them after using them; if they are clean, which can be determined by the eye, she lays them by, and is content; if they are not, she rubs them with a little whiting or chalk, and with just as much as will make them bright, and no more. Observe the same rule with your teeth.

The question is often asked, “What is the best powder for the teeth?” The answer is, *any simple powder*, which will operate as a *polisher* of the teeth, and which will have no other than a *mechanical* effect.

I have prepared and used a variety of dentifrices upon the teeth, and finally am of opinion, that *charcoal*, or coal thoroughly burnt, and pulverized, forms one of the most innocent polishers for the teeth. But this may be made of charcoal so impure, and so badly prepared as to be injurious to the teeth. It ought to be, like all powders for the teeth, perfectly impalpable. Therefore, I would recommend that it always be pulverized in an apothecary’s mortar, and approved by a judge.

This dentifrice will not only whiten the teeth, but will sweeten the breath.

I have also used a dentifrice composed of a number of ingredients, called *Compound Coral Dentifrice*, which does perfectly well, and is used more than pulverized charcoal, or *Carbon Dentifrice*, because it is less smutty, and being of the colour of the gums, will not leave a black appearance about the edge of the gums, which carbon will often do.

Scotch snuff is used by some people as a dentifrice. This keeps the teeth in beautiful order, and is perfectly innocent.

Fine salt is recommended by one Dentist who has published a book, as above all other dentifrices that can be named. I have given it a fair trial upon my own teeth and upon many others; but the result of my experience has been unfavourable to the utility of it, as the teeth feel more naked and tender after the use of it, than after the use of any other dentifrice in my practice.

Some people have a prejudice in favour of *powdered bark* for

strength, or by moistening lint or a bit of sponge with it, and applying the lint or sponge to your gums.*

ON CLEANING TEETH, OR REMOVING TARTAR.

IN the preceding section, a method is laid down for keeping the teeth clean, when they require no other remedy than the brush and dentifrice; but they are often in such a state, that they will be benefited but very little by either. The following case will illustrate this part of the subject.

CASE I. A person called on me, complaining that his gums were extremely tender, and spongy, and

a dentifrice, on account of its astringent and beneficial effects upon the gums. But common sense shews, that the time of its application is so short, that it cannot do any good to the gums. It is true, it will do no hurt, and if any good follows, it arises from inducing people to brush their teeth more than they otherwise would. Therefore, it is the *brushing*, and not the *bark*, that is beneficial.

* The most salutary application to the gums is *tincture of myrrh*, or *tincture of myrrh and tincture of bark* united. This penetrates and condenses the gums, and causes them to contract upon the teeth, and must be much preferable for the gums to any kind of powder, which is brushed off as soon as it is applied.

Observe, *powder* is for the *teeth*, *tincture* is for the *gums*.

N. B. A *decoction of white oak bark* is very good for the gums. It may be applied by holding it in the mouth and moving it about upon the gums. There is no danger of using it too much.

subject to bleed at the slightest impression ; that his front teeth appeared to be decaying and crumbling away,* and also seemed to be a little loose. His object was, if possible, to get some relief.

* Many people suppose, when scales of tartar fall or break off from the teeth, that they are decaying, and (to use their own words) "*are crumbling to pieces*," and will with difficulty be convinced to the contrary. Therefore they will refuse to have any thing done to them, supposing them past recovery. This is an unfortunate mistake, and is the cause of many people's losing a sound set of teeth, when, if they would submit to an operation, which gives no pain, they might save them.

Tartar is of two kinds.

1. One kind is a thick, earthy substance, of a yellow-brown colour, and is formed of the earthy particles of the saliva, which are deposited in the soft substance, that is suffered, through neglect, to remain upon the teeth. These particles, remaining undisturbed, become petrified, and form the hard substance called *tartar*. It is not destructive to the substance of the teeth. It first destroys the gums, and, in its course, consumes the processes of the jaw, which form the sockets and the support of the teeth. The teeth, thus deprived of their support, become loose, and fall out of themselves, or become so troublesome that it is necessary to remove them, which can often be done with the fingers. These teeth, upon examination, are found free from defect, and if they had been seasonably cleaned, and kept clean by attention, might have remained firm and useful.

2. The other kind of tartar is a thin substance, of a dark or black colour, and is intimately connected with the substance of the teeth, and acts upon them like a chemical agent, corroding, or decomposing the enamel. It has the same effect that rust has upon polished steel, and is just as necessary to be removed. Front teeth that decay and break off, are subject to this kind of tartar. It appears upon children's teeth, when not more than eight or ten years old, and will sooner or later destroy them, if neglected. Therefore, children should be furnished with brushes, and be made to brush their teeth, and if the tartar cannot be removed by brushing and dentifrice, it should be removed carefully by a dentist.

Teeth, subject to the first kind of tartar, can, when it is removed, be kept clean by the use of the stiff brush, and soap and water ; but teeth subject to the latter kind, require the additional use of dentifrice.

Upon examination I found his teeth covered with a thick coat of tartar, which extended between the teeth and gums, causing them to recede and hang loose about the teeth, and that the teeth were somewhat loose. I stated to him, that the tartar must first be removed* from the teeth; af-

* Many people have a very erroneous idea of the operation of cleaning teeth, and as their idea is derived from "hearsay," it is easily accounted for. They suppose some substance or wash is applied to the teeth, which causes the tartar to scale off. Hence they suppose some part of the teeth may be destroyed at the same time. And, if this were the manner of cleaning teeth, it is true, some part of the teeth would be destroyed at every attempt of removing the tartar.

This erroneous opinion has also been propagated from the fact, that itinerant quacks have used this pernicious method, in cleaning teeth. They flatter people, that they can render their teeth white and clean in a few minutes, and in order to do it, they will apply a paste or wash, which contains some of the strong mineral acids, and, by the help of a brush, will produce the whiteness they promise. But the teeth very soon turn black again, and a few applications corrode the enamel to such a degree, that the teeth appear like a honeycomb, and soon crumble to pieces. Thus these impostors produce destruction, wherever their poisonous nostrums touch. And this is not all. They raise a prejudice against the operation when performed in a proper manner, and discourage people from availing themselves of the benefit of it.

The operation, when performed as it ought to be, is done with an instrument, which removes the tartar, and leaves the teeth unhurt. It is obvious, that an instrument produces an effect no farther than it reaches, and, if it reaches only to the teeth, and does not enter its substance, it can do no injury.

It may be well here to notice a prejudice against the operation of cleaning, when it is performed properly. This prejudice is owing to an incorrect opinion entertained of the *enamel* of teeth. I have heard many a specious argument pointing out the danger of touching so *curious, mysterious, wonderful, tender* piece of mechanism as the teeth, the least touch upon which, they say, would break the *enamel*, and cause them to decay beyond all remedy. And often have I heard it insinuated, that it

ter which his own attention would keep his teeth in order, and restore his gums to a healthy state. To this he consented; but with little faith in the success of the operation. After removing the tartar from his teeth, I furnished him with a brush and dentifrice, and directions for brushing his teeth,—and also with a phial of tincture of myrrh to apply daily to his gums,—and requested him to continue the use of them faithfully, three or four weeks, and then call on me and I would give him further directions if necessary. At the time proposed he called and stated, much to his own satisfaction as well as mine, that he had more than realized his hopes, and all that I had promised

was an imposition, and even a *crime*, to pretend to benefit them by operating upon them.—I beg leave to put these wise heads right, by informing them, that the teeth are much more *wonderful* and *curious*, than even they could make them; and that, by a wise provision of nature, they are furnished with a covering which is more capable of bearing external and mechanical impressions and operations, than they are aware of. This *covering* is the *enamel*, and is quite a thick substance, constituting, in some teeth, more than one half of that part which is without the gum, when the teeth are full grown. To make a comparison, it is as thick, or thicker than a quarter of a dollar. It is much harder than any bone, or any other animal substance, and feels, when operated upon with a file, like a flint or hardened steel. And although it may be injured by a rough, injudicious operator, yet there is not the least danger from an operator who understands the business and the nature of teeth; and no other person ought to meddle with them.

Any person can easily satisfy himself as to the correctness of the above description of the enamel, if he will only take the trouble to dissect and examine a tooth. The land cow teeth are very similar in their structure to the human teeth, and will answer as well to illustrate the enamel.

him. In short, his teeth were in perfect order, and his gums had become healthy and had contracted about his teeth.

A prejudice against brushing teeth, has often originated from brushing when the teeth and gums are in an improper state, viz. when teeth are covered with a coat of tartar, the gums are always in a state of disease. The tartar operates upon them constantly like an irritating substance, and keeps them in a continual state of ulceration. People, finding their teeth and gums in this condition, have tried brushing to remedy the evil. But they find that brushing causes the gums to bleed, and apparently increases the complaint. Hence they infer, that brushing teeth is pernicious; and their conclusion under these circumstances is correct.—First, remove the tartar and give the gums an opportunity to heal, and then brushing will produce a salutary effect.

ON REPAIRING DEFECTIVE TEETH.

IN the preceding pages, we have treated of the teeth in their sound state, that is, when they have undergone no other disease than that which arises from the tartar.

But, teeth are liable to decay, and pain in consequence of it; and this is the time when people are most likely to apply for remedies and advice. The time, when most can be done for defective teeth is, when the decay first appears, and before the teeth become painful.

The decay often commences upon the teeth in such a manner, that, if taken in season, the hollows can be plugged with gold foil (and without any pain) so that the decay will stop, and the teeth will become as useful as ever. And, often, when they cannot be plugged, the carious parts can be removed, and so smoothed, that a brush will keep them clean, and the teeth will remain stationary and useful. This is particularly the case with the front teeth. The front teeth, when covered with black tartar, are very apt to become defective between them or where they come in contact, before it is noticed. When this happens, it is very necessary, that the teeth be separated, so that the edge of a piece of cambric or cotton cloth or a waxed thread can be passed between and rubbed upon them, or, so that a brush can come in contact with every part of them. And although this will not always save them, yet it will give them the best chance.

Defects in the double teeth, which are far back and out of sight, are often not noticed, till the nerve is exposed and they become painful. And then there is no remedy but the extraction of the

tooth. For this reason people ought to have their teeth frequently examined, and the hollows plugged before the nerve becomes exposed.

But, although a tooth is generally past recovery when the *nerve* is exposed, yet it may sometimes be saved after it has become *painful*. And I have often done it when a person has applied to me with a determination to have it extracted.

It is however necessary to remark, that it is not every defective tooth, that can be plugged or saved. This is owing, 1. To the situation of the defect, either between the teeth, or so remote, that an instrument cannot be made to bear upon it. 2. The defect of itself, when situated conveniently for the operation, may be of such a nature, or of such a form, that it will not admit of filling or plugging, or will not retain it when attempted.



ON EXTRACTING TEETH.

It is hardly necessary to observe, that, when a tooth has become so far defective, that it is constantly painful and past the remedy of filling, relief can only be obtained by the extraction of the tooth; but it may be necessary to state the evils, arising from a delay, or a neglect of the operation; and to remove the fears which often prevent it.

The evils arising from a delay or a neglect of extraction are numerous.

1. *Pain*, which of itself is a very great evil, which renders people unfit for social and rational enjoyment, and often unfit for the common and necessary business of life.

2. *Inflammation*, which produces swelled faces, gum-boils, abscesses, ulceration, attended with fever, and frequently long fits of sickness, all of which might be prevented by a seasonable extraction of the tooth.

3. A *disagreeable fetor* of the breath, which, from habit, may not be noticed by the possessor, but is excessively offensive to all who come near.

4. A *defective tooth* injures, and often produces decay in the sound teeth, and especially those in immediate contact. And even when no pain attends it, it is a nuisance, which has a tendency to produce ill health; and, in a certain town in Germany, it was viewed as an evil of such magnitude, "That the board of health, who may be considered the guardians of life, very properly made it a subject of attention."*

The operation of extraction, when performed by a skillful and experienced artist, who has a command of himself, is safe; and, although the pain for the moment is keen, yet it is much less so than is generally imagined. And patients often say after the operation, that they have suffered

* Woofendale's practical treatise on teeth.

more in the same length of time from teeth ache alone.

There is a timidity in some persons, which often prevents the operation, and which is sometimes *constitutional* ; but it is more frequently the effect of education. Some parents, instead of teaching their children *fortitude* and *resolution* to bear pain, an evil inseparable from our natures, will exhibit before them a peevish, childish conduct when they undergo pain themselves, and often dissuade them from the operation, by saying in so many words, "It will kill ye.—I would not have it done for all the world." And will call an operator an unfeeling monster, who can have a heart to inflict so much cruelty. Instances of this kind, to be sure, are rare ; but I have met with them. Sufferers, who have their fears thus excited, are to be commiserated more than blamed, and the authors of their fears are to be pitied for their weakness and want of foresight.

Children are often told, that there will be no pain from the extraction of a tooth. But when they submit to the operation, they find, they have been deceived, and will with great difficulty submit to an operation again. This deception should never be practised, because it destroys confidence, and lays the foundation of future trouble ; and besides, it is bad morality. It is well enough to observe silence as much as possible ; but, when they put pressing questions, "*whether it will give pain,*"

it ought not to be denied, but they ought to be reasoned with, and told, that they are courageous and willing to undergo a little pain for a moment, rather than suffer pain all the time. If they submit under such impressions, they will often admit, that they have suffered less than they expected, and will not dread a future operation.

ON EXTRACTING ROOTS OR FANGS.

TEETH are often broken off by attempting to extract them, or moulder away, (and sometimes without pain) till they are reduced to mere roots or fangs; and in this state they will continue a long time, and are sometimes of some service. While they continue free from disease and pain, and can be prevented from producing the unpleasant feter, accompanying carious teeth, there is no occasion to extract them.

But teeth, reduced to this state, are generally troublesome, and produce inflammation, swelling, gum-boils, ulceration, and all the evils attendant upon carious teeth.* In such cases there is no

* It may be well to state, that the roots or remains of teeth do not produce pain from the exposure of what is called the *nerve* of the tooth. For these roots have no nerve when in this state. The part, called the chamber of the tooth, which con-

remedy but the removal of the offending fangs, which can be done with the greatest safety, and almost always with less violence and pain than would arise from the removal of the original tooth.*



SYMPATHETIC TEETH-ACHE.

SOMETIMES a perfectly sound tooth will ache, in consequence of a defective tooth in a remote part of the mouth. This is *sympathetic toothache*.

CASE II. A person called on me, who complains the *nerve*, or what some people call the *worm*, is entirely obliterated. They produce disease and pain, because they are, in a sense, dead bodies, and act in the same manner as if lodged in any other part of the flesh.

* Quacks have assumed to themselves great skill, little less than miraculous, for the dexterity and ease with which they extract old stumps and fangs of teeth, and often produce wonder, in people who are ignorant of the true state of the case.

The fact is, nature has done half of the business for them, for when a tooth is extracted the socket is soon entirely obliterated, or closed up by an ossification, which takes the place of the tooth. This ridge, or ossification, acquires a covering of flesh, which becomes tough and cartilaginous, so that old people, who have lost all their teeth, can masticate their food better than when they were afflicted with here and there an imperfect tooth.

Now, when a tooth has been broken off, or has mouldered away, and become a dead root, the above process of ossification commences, absorbing the dead root as it advances, till the root, reduced to a small fragment, is pushed entirely out of the jaw, and is only retained in the gum. When it gets into this state, it is obvious it can be extracted without any difficulty.

ed of an excruciating pain in one of the sapient teeth of the upper jaw. I could discover no defect in it, nor did it exhibit any tenderness by a thorough examination. But I observed, that the sapient tooth in the under jaw was quite hollow. I persuaded him to let me extract the defective tooth,—to which he consented with some reluctance, persisting, that he should still be obliged to have the upper tooth extracted. As soon as the defective tooth was extracted, the pain ceased in the upper jaw and returned no more.—This is only one case among a number, that have occurred in my practice. But in other cases the defective tooth has been situated in various parts of the mouth, from the sympathetic tooth. Sometimes the sympathetic pain extends through a number of sound teeth. This shows that a thorough examination is always necessary before extracting a tooth, and that the impressions of the patient are not always to be relied on. Carious teeth often produce pain in more remote parts of the body. I have frequently extracted teeth when the pain was in the ear and muscles of the neck. One writer says he has “twice extracted teeth, when the most severe pain was in the elbow. In both instances it was one of the molares of the lower jaw, and in both, the pain vanished on removing the tooth.”

RHEUMATIC TEETH-ACHE.

RHEUMATISM sometimes affects the jaws, as well as other parts of the system, and when this is case the pain resembles the toothache, and, in fact, is *teethache*. But it is not always easy to determine whether the pain is rheumatic or not. There is, however, pretty good reason to *suppose* it rheumatic, when the teeth are found free from defect.

CASE III. A person called on me with a violent pain in one of the molares of the upper jaw. On examination I was satisfied the tooth was perfectly sound, and, on further examination, I could not discern the least appearance of defect in any of his teeth. I objected to the extraction of the tooth. He insisted, that "the tooth was defective at the root," and that, if I would not extract it, "somebody else should." After stating my objections fairly, and, that he must take the responsibility entirely upon himself, I extracted the tooth, which proved perfectly sound,—and the pain continued unabated, although he fainted in the operation. Within twenty-four hours he was attacked with a rheumatic pain in the hip, which continued several days. As soon as this came on, the pain ceased in the jaw, and did not return.

IV. A lady called on me, complaining of a severe pain in the ear, and articulation of the jaw, extending over that side of the head, which had

troubled her some length of time, and which she supposed to be rheumatic. On looking into the mouth I discovered a carious tooth. I told her I was suspicious the carious tooth caused all the pain. She supposed it did not, for it had never ached, and she could eat with it as well as with any tooth in the head. On the removal of the tooth the pain subsided and did not return.

Sometimes there are several stumps, which appear to be little connected with the general complaint, and people are reluctant to have them removed. Sometimes out of a number, the pain seems to be lodged in *one*. The extraction of this *one* will sometimes give temporary relief, but it is generally necessary to remove the whole.



ULCERATED TEETH.

Ulceration is a disease, which accompanies stumps and defective teeth. It is preceded by swelling and gum boils, and often commences by small pimples upon the gums over the stump or defective tooth, which will sometimes form and break in the space of twenty-four hours. This disease increases till the whole tooth is enveloped in pus. And sometimes, when the tooth is extracted, it brings out a large mass of ulcerated

mêbrane,* attached to the bottom of the fang. When ulcerated teeth are in the lower jaw, if suffered to remain, they often produce an ulcer through the external integuments and skin, which cannot be made to heal till the offending stumps are extracted. When this happens it always leaves an unseemly scar.

CASE V. A lady consulted me with an open ulcer of the lower jaw, which had discharged outwardly nearly a year. She was told by those who had prescribed for it, that it was a scrophulous ulcer. She had made a variety of local applications, which would sometimes cause it to heal up for a short time, during which it would swell up, and afterwards break and discharge more abundantly. Her health had suffered considerably under it, and her friends feared she was going into a decline. She also had been taking bark and chalybeates for some time. On examination I found the dens sapientiæ defective. It was extracted, and in a very short time the ulcers healed, and no further disease ensued.

CASE VI. A young lady (whose teeth decayed very rapidly, and whose friends were unwilling to have them extracted, for fear of injuring her features, which were very beautiful) had an ulcer, which broke through the lower jaw externally. Her health was so much impaired, that she had medical attendance, and was often confined to the house for a number of weeks in succession. On

being consulted, I persuaded her friends to let me extract the defective teeth. They consented to the removal of *one*, which seemed to be the immediate cause of the ulcer. This gave temporary relief; but after a few weeks the ulcer opened again, and her friends almost despaired of a cure. I urged the removal of the remaining defective tooth; and, after making them many assurances that a cure could be effected, they consented. All the diseased teeth being now removed, the ulcer very soon healed, and she had no more trouble. Her health also improved generally.

CASE VII. A lady consulted me with a hard lump in the lower jaw, at the bottom of one of the small double teeth, which seemed under the finger to be as large as an almond, and had existed several weeks. The tooth was defective, but was not painful. I predicted an ulcer externally, unless the tooth was extracted. She consented, and in about two weeks the swelling entirely disappeared. These cases carry their own comments with them, and are enough for my present purpose, although I could detail a number more.

Another variety of this disease takes place where the teeth are perfectly sound. This happens, when the gums are destroyed by tartar, or are absorbed from some other cause, leaving the teeth more or less naked. Teeth in this state are painful, on the admission of cold air, or cold or hot liquids. They at length become loose and drop

out, unless they are removed. When teeth are in this condition, they cannot be helped. When the disease is owing to tartar, it may be prevented by removing the tartar *seasonably*; but when the gums recede without any apparent cause, it seems to be a peculiar disease, which occurs mostly in advanced life.

INFANTILE OR TEMPORARY TEETH.

CHILDREN cut their first teeth between the ages of four, and twenty-four months. The number of teeth that are shed is twenty, viz.

Eight incisors or cutting teeth (four in each jaw.)

Four pointed teeth, called *canine* teeth; the two in the upper jaw are sometimes (erroneously) called *eye teeth*, (anatomically, *cuspidati*, from having one point and one fang.)

Eight double teeth, four in each jaw. These double teeth in the infant are called *molars*. The teeth that take the place of these in the adult, are called *bicuspidates*, from having two points and two fangs.

Children often suffer considerable pain from cutting their first teeth, which produces an irritation through the whole system, such as disorder-

ed stomach and bowels, fevers, convulsions, &c. Sometimes children's bowels are relaxed, sometimes costive. By observation it seems, that children suffer less when the bowels are relaxed, than when the reverse. Hence when this state of the bowels is not in excess, and produces no irritation in the stomach, it is well to let nature take its course. When the bowels are constipated, it is well to have recourse to laxatives.

When laxatives or astringents are necessary, such should be used as best suit the constitution of the child.

Some experienced Dentists, who have written on the subject, are of opinion, that *mercurial medicines*, taken during the formation and growth of teeth, are injurious to the constitution of them. Observation certainly does not contradict it. If this be the case, great caution should be observed in the use of it, and other cathartical remedies resorted to.

Whenever the gums become swelled and inflamed, great relief may be given by scarifying them; and this operation may be repeated several times, if the gum continues to reunite. This takes off the tension, and lets a little blood, which abates both pain and inflammation. The operation gives no pain, or very little, for I have frequently met with instances where children have pressed against the instrument, as soon as it came in contact with the gum, just as they will press

against the finger or any other substance, put into the mouth to assist the cutting of the teeth. When children cry, it is oftener from the fear of being hurt, or of seeing a stranger.

Children's double teeth often decay and become painful before the usual time of shedding them. In these cases, it is best to have them extracted, as the development of the second teeth will not be injured by the operation.

Children's front teeth sometimes moulder away level with the gums, either from sickness and taking medicine, or without any apparent cause. When this is the case, and no inflammation of the gums nor pain accompanies it, there is no harm in letting the stumps remain till near the time that the second teeth make their appearance. But, if there is pain, or disease in the gums, they should always be removed.



ON SHEDDING TEETH.

CHILDREN shed their temporary teeth between the ages of six and twelve years. They rarely commence the process younger, or complete it later.

During the time of shedding the temporary

teeth, children have eight additional double teeth, four in each jaw, called molares, or permanent teeth. Four of these appear about the time the process of shedding commences, and four about the time the process terminates, viz. at about six and twelve years of age. In addition to these, four other double teeth come between the ages of sixteen and thirty years, rarely later, called dentes sapientiæ, or wisdom teeth, making the complete set *thirty-two*.

IRREGULAR TEETH.

It is very common for the second or permanent teeth to come irregularly. This is owing sometimes to not removing the temporary teeth soon enough, sometimes to the permanent teeth coming much larger in proportion than the first, and the jaw not expanding enough to give them room, which seems to be hereditary. In both cases something can be done to remedy the irregularity.

1. If it is owing to the interference of the first teeth, a perfect remedy will be found in removing them immediately, and applying pressure with the fingers, or with an apparatus for the purpose.

2. In other cases, reference must be had to

skilful and experienced Dentists, who, by adopting means as the cases may require, can do a great deal to remedy the evil; and, often, all that is desired. But success depends upon perseverance and unremitting attention. Avoid flippant, theoretic inexperience and quackery.

ARTIFICIAL TEETH.

ON this head nothing more will be said, than generally to state the manner of inserting teeth, and to quiet the fears of people who dread the operation, and who deprive themselves of the benefit of it from erroneous views and impressions on the subject.

Many people suppose, when an artificial tooth is set, that the old stump or root, if there is one, is extracted, and a tooth is fitted into the socket, which grows in, or, if there is no stump, that an artificial socket is made through the gum into the jaw, and an artificial tooth put into this socket. And I have been applied to, to set teeth for persons who have come with their minds made up to endure all the torture attendant upon such an operation. Credulous people get such impressions from *knowing, talking ones*, who know

nothing about the art, and who retail the whimsies of their own wild imaginations.

As to extracting a stump and inserting a tooth in its place, it is an operation never performed in this country, and is out of repute in other countries. The only way in which it can be done is, to have a person present who will consent to have a sound tooth of the same size and shape extracted, which must be done at the same time that the old stump is extracted, and the sound tooth must be inserted immediately, while it is alive. In this way the tooth will unite to the recent socket, and grow in. But even when inserted in this way, the tooth will produce supuration, and drop out, if there is any disease in the gum.

That a recent tooth will grow into a recent socket, I know, both from *practice* and *experience*. From *practice*, because I have replaced teeth, which have been knocked out by accident, or extracted by mistake. From *experience*, because I once had a tooth extracted myself, which was out of my head several minutes, and was afterwards reduced and became a firm tooth. In all these instances, the teeth were not transplanted from one socket to another, but were merely returned to their original places. This sufficiently proves, however, that a tooth will grow in, if *transplanted*, as well as merely *returned*, if the tooth is recent and is adapted to a recent socket.

Dr. Hunter made a recent tooth grow into a cock's comb, by introducing it into an incision made for the purpose.

As to making an artificial socket in the jaw, and causing a tooth, either *dead* or *alive*, to grow in, or causing a *dead* tooth to grow into a recent natural socket, it is altogether impossible. But I know a person on whom an ignorant impostor made the attempt. He suffered great torture for three or four days, and then threw the tooth away. The question then is, How can teeth be inserted. The answer is, in three ways.

1. By inserting them upon the stumps of teeth that have decayed and broken off, and confining them by a pivot or pin. In this way it is done with very little pain, as the stumps, in nineteen cases out of twenty, are dead, having lost the nerve. In which case no more pain is inflicted, than arises from filing down the dead stump, which is comparatively nothing. If there is a nerve, it can be destroyed by a speedy and safe operation, and then the stump will be as senseless as if the nerve had been previously dead.

2. When there are no stumps, and there are teeth on each side, or even on one side of the vacant space, teeth can be fitted nicely to the gums, and confined to the teeth each side by ligatures or gold wire. In this way no pain is given, as no violence is done to the gums or teeth.

3. When all the teeth and all the stumps are

gone, whole sets of teeth can be fitted to the gums, and confined by springs.

Finally, of all the ways to insert teeth, no way is equal to setting them on *good stumps*, as they can be made to imitate natural teeth perfectly, and do more service than in any other way. Therefore, if people ever intend to have artificial teeth, which shall do them the *most* service, and give them the *least* trouble, and look *handsome*, they must have it done as soon as the old teeth break off, or as soon as the old teeth are dead and become hollow. Because, a tooth inserted upon a stump that is sound, will preserve the stump a great number of years ; but a stump left without a tooth, exposed to the air, decays and moulders away very soon, and sometimes even in less than a year is incapable of bearing a tooth.

